PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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		Application Number	er .	10/630,537		7	
TEORM			Filing Date	·	July 29, 20	03	
			First Named Inven	tor	Sandeep BHATIA		1
(SEP 2 7 2006 y			Art Unit		2138		1
Whe used for all styresponden	nce after initi	ial filing)	Examiner Name		Phung M.	CHUNG	1
Total Number ages in This S	Submission	1 -8-	Attorney Docket No	umber	CA703422	2001	1
		ENCLO	SURES (check all tha	t apply)]
Fee Transmittal Form]	Drawing(s)	,	After Allo	owance Communication to TC	7
Fee Attached	. [Licensing-	related Papers			Communication to Board als and Interferences	
Amendment / Reply		Petition				Communication to TC	
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Certified Copy of Priority Document(s)]
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Firm Bingham N			Cutchen LLP				
Signature]
Printed Name Peter C. Me			Mei				
Date September			22, 2006	Reg. No.	39,768		Ţ
	CERTIFICATE OF TRANSMISSION/MAILING						
I hereby certify that this corres Service with sufficient postage Patents, P.O. Box 1450, Alexan	e as First	Class Mail i	n an envelope addres	ssed to: N	or deposited lail Stop AMI	with the United States Postal ENDMENT, Commissioner for	
Signature 6	faura	a. Hun	tington				
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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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CERTIFICATE OF MAILING

paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

Sandeep BHATIA

Serial No.: 10/630,537

Filing Date: July 29, 2003

For: TEST COMPACTION BY USING

LINEAR-MATRIX DRIVEN SCAN

CHAINS

Confirmation No.: 9252

Examiner: Phung M. CHUNG

Group Art Unit: 2138

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement (IDS) are being brought to the attention of the Office. The items are listed on the attached forms PTO/SB/08A and PTO/SB/08B. The Examiner is requested to make these documents of record.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicant(s) is not to be construed as an admission that any such. patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicant(s) as such.

1. Tim	ning of	the Information Disclosure Statement:
	(1) with	OS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), in the new patent application submitted herein (37 CFR § 1.97(a)); or (2) within
		of the filing date of the application, which is not a continued prosecution
applica	ation file	d under § 1.53(d) or (3) within three months of entry of the national stage as set
forth i	n 37 CF	FR § 1.491; or (4) before the mailing of a first Office action on the merits; or
(5) bef	ore the	mailing of a first Office action after filing a request for continued examination
under	§ 1.114.	Thus, no fee is required.
		However, if the undersigned is in error in this regard, Applicant(s) respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR § 1.17(p) to the deposit account referenced below.
		However, if the undersigned is in error in this regard, Applicant(s) respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and a statement under 37 CFR § 1.97(e) is included below, thus no fee is required.
\boxtimes	This ID	S is being submitted under 37 CFR § 1.97(c), that is after mailing of a first Office
Action	on the r	merits, but before a Final Action under 37 CFR § 1.113 or a Notice of Allowance
under	37 CFR	§ 1.311.
•	\boxtimes	Charge the fee due under 37 CFR § 1.17(p) to the deposit account referenced below.
		The fee due under 37 CFR § 1.17(p) is being concurrently submitted with the filing of an electronic IDS submission. Thus, no additional fee is required.
		A statement under 37 CFR § 1.97(e) is included below, thus no fee is required. In the event that this IDS is not received before a Final Action or a Notice of Allowance, then Applicant(s) respectfully requests that the Office consider the filing of these papers to be submitted under 37 CFR § 1.97(d) and charge the fee due under 37 CFR § 1.17(p) to the deposit account referenced below.
	This ID	S is being submitted under 37 CFR § 1.97(d), that is after a Final Action under
37 CF	R § 1.11	3 or a Notice of Allowance under 37 CFR § 1.311, but before payment of the
issue f	ee. As	tatement under 37 CFR § 1.97(e) is included below. Charge the fee due under
37 CFI	R § 1.17	(p) to the deposit account referenced below.

	This IDS is being submitted under 37 CFR § 1.97(i), that is after a Final Action under
37 CFI	R § 1.113 or a Notice of Allowance under 37 CFR § 1.311, but before payment of the
issue f	ee.
	STATEMENT UNDER 37 CFR § 1.97(e):
	That each item of information contained in the IDS was first cited in any communication
from a	foreign patent office in a counterpart foreign application not more than three months
prior to	the filing of the IDS; or
	That no item of information contained in the IDS was cited in a communication from a
foreign	patent office in a counterpart foreign application, and, to the knowledge of the person
signing	the certification after making reasonable inquiry, no item of information contained in the
IDS wa	as known to any individual designated in 37 CFR § 1.56(c) more than three months prior
to the f	filing of the IDS.
2. Co	pies of the Cited Items:
\boxtimes	Copies of all of the items listed on the attached form PTO/SB/08B are enclosed.
⊠ are en	Copies of only the following items listed on the attached forms PTO/SB/08A (Item No. 6) closed.
⊠ are not	Copies of the following items listed on the attached form PTO/SB/08A (Item Nos. 1 - 5) tenclosed. See 37 CFR 1.98(a)(2)(i).
Informa upon ii	Copies of the following documents listed in PTO/SB/08A (Item Nos. *) and PTO/SB/08B Nos. *) are not supplied as they were previously cited by the Office or submitted in ation Disclosure Statements in related applications (Application No. *, filed *) and relied in this application for an earlier filing date under 35 USC § 120. See 37 CFR § 1.98(d). caminer is requested to make these documents of record.
and P7 copy o	Copies of the following items listed on the attached forms PTO/SB/08A (Item Nos. *) FO/SB/08B (Item Nos. *) were cited in a foreign examination report in a related case. A f the search report and the cited references not already of record in this application are ed hereto.

3. Concise Explanation of Relevance:

\bowtie	A concise explanation of relevance of the items listed on forms PTO/SB/08A and
PTO/S	B/08B is not given.
	A concise explanation of relevance of [some of] the items listed on forms PTO/SB/08A
and P	TO/SB/08B is in the form of an English language copy of a Search Report from a foreign
patent	office, issued in a counterpart application, which refers to the relevant portions of the
refere	nces (copy attached).

4. Related Applications:

Applicant(s) brings to the Office's attention the following related application(s): U.S. Patent Application No. 10/718,445, filed November 19, 2003.

5. Conclusion:

Citation of the above documents shall not be construed as:

- 1. an admission that the documents are necessarily prior art with respect to the instant invention;
- 2. a representation that a search has been made, other than as described above; and
- 3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

It is respectfully requested that the Examiner indicate consideration of the cited references by returning a copy of the attached forms PTO/SB/08A and PTO/SB/08B with initials or other appropriate marks. In the unlikely event that the transmittal letter is separated from this document and the U.S. Patent Office determines that an extension and/or other relief is required, Applicant(s) petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 50-2518**, referencing

Page 4

7034222001 However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

By:

BA:

Pe

Registration No. 39,768

BINGHAM MCCUTCHEN LLP

Dated:

3 Embarcadero Center San Francisco, California 94111

Telephone: (650) 849-4870 Facsimile: (650) 849-4800

PTO/SB/08A (07-05)
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Sheet 1 of 2

Complete if Known				
Application Number	10/630,537			
Filing Date	July 29, 2003			
First Named Inventor	Sandeep BHATIA			
Art Unit 2138				
Examiner Name	Phung M. CHUNG			
Attorney Docket Number CA7034222001				

			U.S. PATE	ENT DO	CUME	ENTS			
Examiner	Cite	Document Number	Publicatio	n Date	Name	of Patentee or Applicant of Cited Document	Page	s, Columns, Lines, Where Rela	evant
, Initials *	No. ¹	Number - Kind Code ² (if known)	MM-DD-	YYYY 		or cited bocoment		Passages or Relevant Figures Appear	
	1	US- 6,079,040 A	· 06/20/2	2002		Hom et al.	<i>'</i>		
	2	US- 6,418,545 B1	07/09/2	2002		Adusumilli			,
	3	US- 6,901,544 B1	05/31/2	2005		Huth et al.			
	4	US- 2003/0204802 A1	10/30/2	2003		Sim			-1
	5	US- 2004/0078741 A1	04/22/2	2004		Morton			
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.usplo.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant is to place a check mark here if English language Translation is attached.

WIFU Standard \$1.16 if possible." Applicant is to place a check mark here it English language I ranslation is attached.

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Substitute	for form 1449B/F	то		Complete if Known			
				Application Number	10/630,537		
			LOSURE	Filing Date	July 29, 2003		
STATEMENT BY APPLICANT			PLICANT	First Named Inventor	Sandeep BHATIA		
				Art Unit	2138		
	(Use as many	sheets as nec	essary)	Examiner Name	Phung M. CHUNG		
Sheet	2	of	2	Attorney Docket Number	CA7034222001		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	1	BALAKRISHNAN, K. J., et al., "Deterministic Test Vector Decompression in Software Using Linear Operations", Proceedings of the 21st IEEE VLSI Test Symposium, April 27 - May 1, 2003, pp. 225 - 231, IEEE, Los Alamitos, CA, USA.	
	2	BARDELL, P. H. et al., "Build-In Test for VLSI: Pseudorandom Techniques", 1987, pp. 61-313, John Wiley and Sons, New York, USA.	
	3	BHATIA, S., "Test Compaction by Using Linear-Matrix Driven Scan Chains", Proceedings of the 18 th IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems, November 3 - 5, 2003, pp. 185 - 190, IEEE, USA.	
,	4	BHATIA, S., "Test Compaction in a Parallel Access Scan Environment", Proceedings of the 6 th Asian Test Symposium (ATS '97), November 17 - 19, 1997, pp. 300 -305, IEEE, Los Alamitos, CA, USA.	
	5	HELLEBRAND. S., et al., "Generation of Vector Patterns Through Reseeding of Multiple-Polynomial Linear Feedback Shift Registers", Proceedings of the International Test Conference, 1992, pp. 120 -124, France.	
	6	HSU, F. F. et al., "A Case Study on the Implementation of the Illinois Scan Architecture", Proceedings of the International Test Conference; 2001, pp. 538 - 547, International Test Conference, Washington, D.C., USA.	
- * -	7	JARAMILLO, K. et al., "10 Tips for Successful Scan Design: Part One"; February 17, 2000, endmag.com, pp. 67 - 73, 75; USA.	
	8	JARAMILLO, K. et al., "10 Tips for Successful Scan Design: Part Two"; February 17, 2000, endmag.com, pp. 77, 78, 80, 82, 84, 86, 88, 90; USA.	
	9	KIEFER, G. et al., "Deterministic BIST with Multiple Scan Chains", Proceedings of the International Test Conference, 1998, pp. 1057 - 1064, International Test Conference, Washington, D.C., USA.	
•	10	KRISHNA, C.V. et al., "Reducing Test Data Volume Using LFSR Reseeding with Seed Compression", Proceedings of the International Test Conference, 2002, pp. 321 - 330, International Test Conference, Washington, D.C., USA.	
	11	McCLUSKEY, E. J., "Test Data Compression", Design & Test of Computers, March - April 2003, pp. 76 - 87, Volume 20, Issue 2, IEEE Computer Society and the IEEE Circuits and Systems Society, USA.	
	12	RAJSKI, J. et al., "Embedded Deterministic Test for Low Cost Manufacturing Test", Proceedings of the International Test Conference, 2002, pp. 310 - 310, International Test Conference, Washington, D. C., USA.	

Examiner	Date	
Signature	 Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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